WHAT IS CLAIMED IS:

1. A semiconductor device, comprising:

a semiconductor substrate;

a gate insulation film formed on said semiconductor substrate; and

a gate electrode formed on said gate insulation film,

said gate electrode comprising:

a first polycrystalline silicon film formed on said gate insulation film; and

a second polycrystalline silicon film formed above said first polycrystalline silicon film, said second polycrystalline silicon film being in a different crystal state from said first polycrystalline silicon film, and at least an upper layer thereof being silicidized.

2. The semiconductor device according to claim 1, further comprising:

a separation layer, provided between said first polycrystalline silicon film and said second polycrystalline silicon film, for intercepting silicidization of said first polycrystalline silicon film.

3. The semiconductor device according to claim 1, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal face orientation.

4. The semiconductor device according to claim 2, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal face orientation.

5. The semiconductor device according to claim 3, wherein a proportion of a silicon crystal face orientation (111) of said second polycrystalline silicon film is greater than that of said first polycrystalline silicon film.

6. The semiconductor device according to claim 4, wherein a proportion of a silicon crystal face orientation (111) of said second polycrystalline silicon film is greater than that of said first polycrystalline silicon film.

7. The semiconductor device according to claim 1, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal particle diameter.

8. The semiconductor device according to claim 2, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal particle diameter.

9. The semiconductor device according to claim 7, wherein a crystal particle diameter of said second

polycrystalline silicon film is smaller than that of said first polycrystalline silicon film.

10. The semiconductor device according to claim 8, wherein a crystal particle diameter of said second polycrystalline silicon film is smaller than that of said first polycrystalline silicon film.

11. The semiconductor device according to claim 1, wherein any one of a cobalt silicide layer, a titanium silicide layer, a nickel silicide layer, and a platinum silicide layer is formed in said second polycrystalline silicon film by said silicidization.

12. The semiconductor device according to claim 2, wherein any one of a cobalt silicide layer, a titanium silicide layer, a nickel silicide layer, and a platinum silicide layer is formed in said second polycrystalline silicon film by said silicidization.

13. A method for manufacturing a semiconductor device, comprising:

a first step of forming a first polycrystalline silicon film above a semiconductor substrate with a gate insulation film intervening therebetween;

a second step of forming above said first polycrystalline silicon film a second polycrystalline silicon film different in crystal state from said first polycrystalline silicon film; and

a third step of silicidizing at least an upper portion of said second polycrystalline silicon film to form a gate electrode comprising said first

polycrystalline silicon film and said silicidized second polycrystalline silicon film.

14. The method for manufacturing a semiconductor device according to claim 13, further comprising:

after said first step and before said second step, a step of forming on said first polycrystalline silicon film a separation layer for intercepting silicidization of said first polycrystalline silicon film.

15. The method for manufacturing a semiconductor device according to claim 13, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal face orientation.

16. The method for manufacturing a semiconductor device according to claim 14, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal face orientation.

17. The method for manufacturing a semiconductor device according to claim 15, wherein a proportion of a silicon crystal face orientation (111) of said second polycrystalline silicon film is made greater than that of said first polycrystalline silicon film.

18. The method for manufacturing a semiconductor device according to claim 16, wherein a proportion of

a silicon crystal face orientation (111) of said second polycrystalline silicon film is made greater than that of said first polycrystalline silicon film.

19. The method for manufacturing a semiconductor device according to claim 13, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal particle diameter.

20. The method for manufacturing a semiconductor device according to claim 14, wherein said different crystal state denotes varying said second polycrystalline silicon film from said first polycrystalline silicon film in crystal particle diameter.

21. The method for manufacturing a semiconductor device according to claim 19, wherein a crystal particle diameter of said second polycrystalline silicon film is made smaller than that of said first polycrystalline silicon film.

22. The method for manufacturing a semiconductor device according to claim 20, wherein a crystal particle diameter of said second polycrystalline silicon film is made smaller than that of said first polycrystalline silicon film.

23. The method for manufacturing a semiconductor device according to claim 13, wherein said second step forms said second polycrystalline silicon film

by depositing an amorphous silicon film and thereafter applying a heat treatment to said amorphous silicon film to crystallize said amorphous silicon film.

24. The method for manufacturing a semiconductor device according to claim 14, wherein said second step forms said second polycrystalline silicon film by depositing an amorphous silicon film and thereafter applying a heat treatment to said amorphous silicon film to crystallize said amorphous silicon film.

25. The method for manufacturing a semiconductor device according to claim 13, wherein said silicidization is controlled by a film thickness of said second polycrystalline silicon film.

26. The method for manufacturing a semiconductor device according to claim 14, wherein said silicidization is controlled by a film thickness of said second polycrystalline silicon film.

27. The method for manufacturing a semiconductor device according to claim 13, wherein any one of a cobalt silicide layer, a titanium silicide layer, a nickel silicide layer, and a platinum silicide layer is formed in said second polycrystalline silicon film by said silicidization.

28. The method for manufacturing a semiconductor device according to claim 14, wherein any one of a cobalt silicide layer, a titanium silicide layer, a

nickel silicide layer, and a platinum silicide layer is formed in said second polycrystalline silicon film by said silicidization.